



Edwards Air Force Base  
95th Air Base Wing  
Environmental Management

# *Report to* **STAKEHOLDERS**

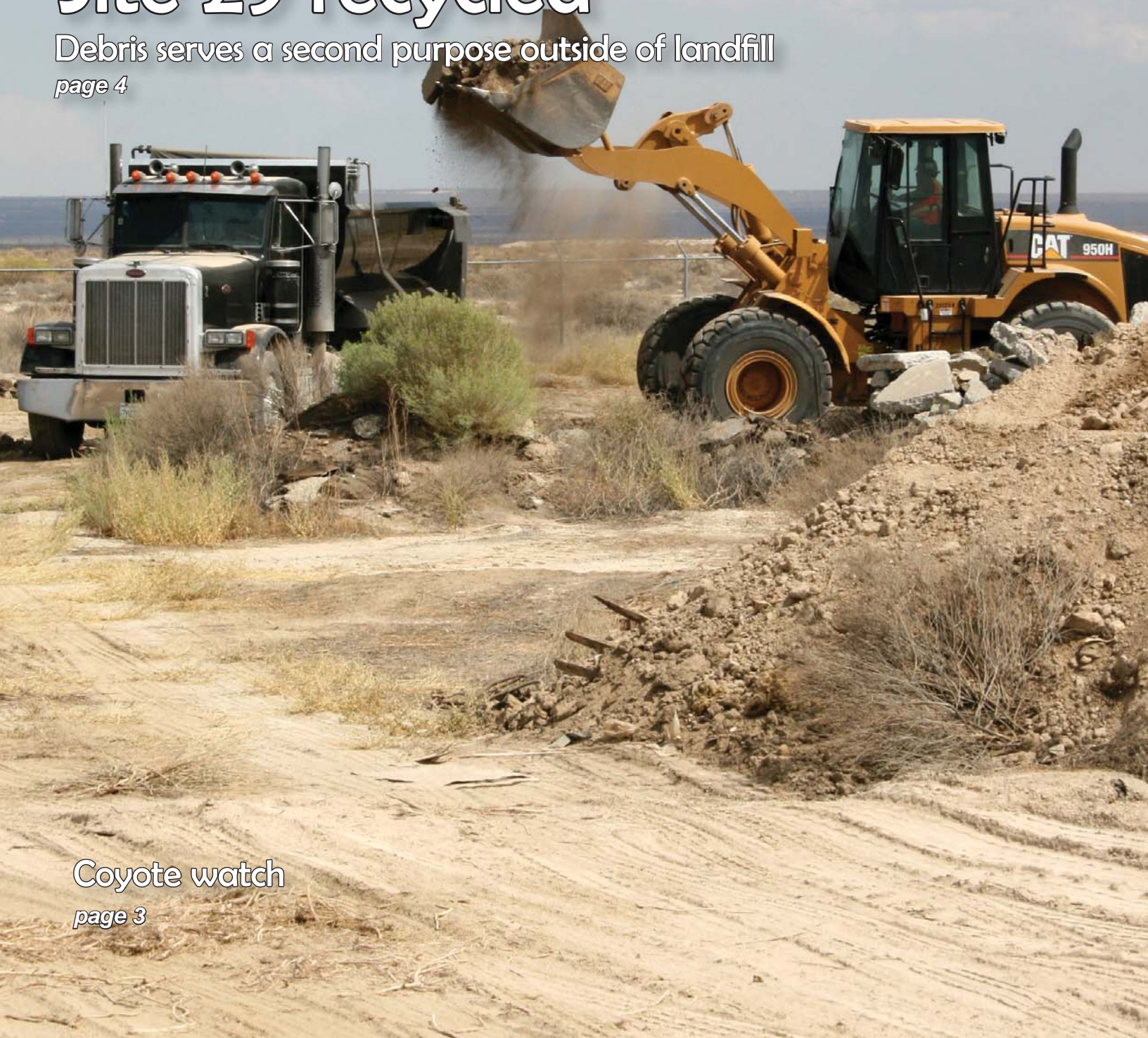
December 2008

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## Surface debris from Site 29 recycled

Debris serves a second purpose outside of landfill

*page 4*



Coyote watch

*page 3*



# Report to STAKEHOLDERS

*Report to Stakeholders* is a publication of Edwards Air Force Base, 95th Air Base Wing, Environmental Management. Its purpose is to inform and educate the public, base workers and residents about continuing environmental and safety efforts on base. It currently has a circulation of 6,000, including about 2,000 subscribers.

Contents of the *Report to Stakeholders* are not necessarily the official view of, or endorsed by, the U.S. government, the Department of Defense or the Department of the Air Force.

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## in this issue

EM workers show what they do for America Recycles Day	2
Safety measures, vigilance needed to protect pets from predators	3
Surface debris at South Base serves a second purpose outside of landfill	4
Site 3: Put a lid on it	6
Information	8

## Environmental Management workers show what they do for America Recycles Day

Did you know that paper-based products consume an estimated 40 percent of the space in America's landfills?

To raise awareness and decrease the amount of recyclables dumped into landfills, the U.S. Environmental Protection Agency (EPA) sponsors America Recycles Day every November as a partnership between government, industry and environmental organizations to promote and encourage recycling nationwide. The day, first recognized in 1997, is an important part of the EPA's drive to achieve a 35 percent national recycling rate.

Now in its 11th year, America Recycles Day has inspired millions of Americans to make a pledge to increase their recycling habits at home and in the office. One such pledge came from Environmental Management staff at Edwards.

Staff members were encouraged to clear their cubicles of unnecessary paper products. Materials such as manuals, magazines, brochures and cardboard were tossed into two large recycling roll-off bins. These bins were later taken to the recycling center.

"It was a great chance to let the base see how dedicated Edwards is to recycling. This is the first year anything like this has been done," said Steve Madoski, Environmental Management solid waste manager. "I know it set a good example for the base and I hope more organizations will catch on and participate next year."

The goal of America Recycles Day is to continue to promote the social, environmental and economic benefits of recycling and encourage more people to join the movement toward creating a better natural environment.

What are you doing to recycle? For more information on America Recycles Day, visit: <http://nrc-recycle.org/americanrecycles.aspx>.

### DID YOU KNOW?

Recycled newspaper can be de-inked and made into newspaper again and also is used in home insulation materials, animal bedding, compost material and fuel.

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### What's on the cover?

**RECYCLE** — A bulldozer at Site 29 loads a truck with asphalt that is to be recycled. See article on page 4.

**For all environmental concerns, please call the Environmental Management Customer Service Desk at (661) 277-1401.**

# Safety measures, vigilance needed to protect pets from predators at Edwards

**B**eing a small community surrounded by several hundred square miles of desert means special safety measures need to be taken to prevent wild animals from harming pets or possibly family members, base officials said.

Those precautions, if taken by everyone, can greatly reduce the chance of problems with wildlife across the whole community. But if some ignore the dos and don'ts, they can cause problems for their neighbors.

Recently a pet dog was attacked by a coyote that jumped the wall into a backyard in the Mountain View housing area. The dog survived the attack, but required treatment by a veterinarian.

Base biologists are not aware of any wild animal attacks on humans at Edwards or in the Antelope Valley, but there have been reports of coyotes attacking children earlier this year near Chino Hills, between Los Angeles and Riverside.

It is not uncommon to lose a pet or two each year to coyotes, or other predators like bobcats or owls, base biologists say. However, base officials want to get a more accurate idea of the extent of the problem. A survey has been sent to all housing residents asking them to report any wildlife attacks they have personally encountered on base. This will help determine if the attacks are from a random animal taking advantage of an opportunity, or if there is a pattern of behavior. The information gained will help biologists respond to this issue.

Regardless of what is learned by the survey, education and subsequent actions taken by housing residents can greatly reduce the likelihood of problems with wildlife.

"We live in a desert, which we share with a large number of wild animals," said Col. Nancy Reeves-Flores, 95th Air Base Wing vice commander.

"We can't get rid of all the animals in the desert, and if we were to try to trap or remove all those near the housing areas, others would move in to take advantage of the easy access to food, water and shelter," she said.

That being said, if the biologists learn through their surveys that there are coyotes or other predators targeting backyard pets, then those particular animals may need to be removed. Once a predator learns such behavior, it is extremely difficult to get the animal to stop, base biologists say.

"One thing is clear. We need to become a better educated community and take all the steps we can to discourage the wild animals from frequenting our housing areas," Col. Reeves-Flores said.

Coyotes and other desert animals will usually try to avoid people at all costs. They may stop and stare for a few seconds, but from a safe distance. These same animals, however, are often attracted to the conditions that people create. Sometimes the ready access to food, water and shelter will outweigh an animal's natural apprehension.

The key is to eliminate as many attractants as possible to all forms of wildlife.

"There will always be some contact between humans and the



**ROAMING** — A coyote stops to take a look at the photographer who took this photo at Off-Road Vehicle Area 2 on base.

wild animals in the desert," said Mark Bratton, a base biologist with Environmental Management. "But we need to do all we can do to discourage them from lingering.

"We not only need to remove all food sources for predators like coyotes and bobcats, we need to stop feeding the smaller animals, like rabbits and squirrels. Feeding the smaller animals will bring the predators."

Base biologists offer the following suggestions to base residents to discourage visits from coyotes or other wild animals.

- Do not leave food or water outside. Cat and dog food attracts hungry coyotes and other animals.
- Do not leave small pets — cats, domestic rabbits and small dogs — outside unattended, especially at night.
- Trim bushes and shrubs to minimize hiding places or shady spots.
- When trash is not being collected, secure garbage cans so they cannot easily be knocked down or rummaged through. Use rope or elastic cord to secure the can to a fence or other immovable object or use it to keep the container closed.

"Eliminating food, water and shady areas around your home will discourage a coyote from hanging around," Mr. Bratton said. "The less comfortable coyotes feel around us, the better. We want them to maintain their wariness of humans."

Anyone who encounters a coyote or bobcat in one of the housing areas should keep the following tips in mind:

- Do not panic or run.
- Stand straight and make yourself appear tall and large.

See COYOTE, page 7

# Surface debris at South Base serves a second purpose outside of landfill

**O**ne way of putting trash to good use is to recycle materials that can serve a second purpose outside of a landfill. Base restoration experts are applying this idea to a debris cleanup project at Site 29, which is an inactive landfill located at South Base.

"It just makes sense not to put more than is necessary into a landfill," said Rebecca Hobbs, restoration program manager for South Base. "Landfill space is already taken up by waste that cannot be recycled or reused."

Surprisingly, it's not buried debris from the South Base landfill being sorted. Rather, the cleanup focuses on debris sitting on top of the closed landfill.

"We're removing the surface debris so we can analyze the landfill," Hobbs said. "Specifically, we plan to check the adequacy of the existing soil cover on the landfill. It's most important that we isolate the waste and protect the groundwater. Groundwater monitoring wells currently show no contamination, but we want to validate the integrity of the landfill. And we need to remove the surface debris to do so."

In 1985, Muroc Army Air Field facilities were demolished to make room for the Birk Flight Test Facility in support of the B-2 Bomber. The resulting debris was deposited on the surface of the South Base landfill. The debris included concrete, asphalt, wood, metal and plastics.

"We expect the bulk of the debris to be recycled or reused," Hobbs said. "Any waste that cannot be recycled or reused will be sent to the open landfill on base. As a result, the base will not have to pay for disposal and will even get money back for the materials recycled."

The team expects to clear about 90,000 tons of debris from the surface of Site 29. The amount of material recycled will be added to a running total tracked by the base. Environmental Management workers report these figures to the Office of the Deputy Undersecretary of Defense, Installations and Environment every six months.

"Our goal is to recycle 50 percent of the



**UNLOAD** — A truck dumps asphalt into the asphalt recycling area for Site 29.

waste generated by the base," said solid waste expert Gary Schafer. "So, every little bit counts."

Restoration experts are letting nothing go to waste. The team moved concrete and asphalt to a quarry already landscaped with concrete slabs from the Main Base runway demolition. According to Schafer, the base will grind up the concrete into pebbles to cover road shoulders or layer beneath asphalt for new roads.

Hobbs originally planned to send wood and metal material to the Main Base recycling center. However, the wood was so degraded that the recycling center could not use it for mulch.

"The act of grinding the wood produced dust instead of mulch," said Chris Bason, project manager at Site 29. "But the wood should still help with organic decomposition inside of the base landfill."

"On a more positive note, the steel recycling has been very successful," Bason said. "The site contains steel debris such as structural steel and piping that was encased

in concrete. We even recycled a car door."

Bason is in familiar territory when it comes to recycling debris. Co-owner of a small disadvantaged business, Bason has worked on similar projects off base. A small disadvantaged business is one unconditionally owned and controlled by one or more socially and economically disadvantaged individuals, such as Native Americans. But this is the first time his company has taken the lead instead of the supporting role.

"Our company was normally the subcontractor to a bigger firm leading the project," Bason said. "But a U.S. Small Business Administration contract enabled us to reverse the roles. As a result, we manage the Site 29 project and still have access to all the resources provided by the larger company."

Acting as lead is an opportunity that Bason is unlikely to forget.

"Working as the prime contractor on this project helps a lot," Bason said. "Getting your first big job is the hardest.



This is a stepping stone to bigger projects.”

“The project is progressing nicely,” Hobbs said. “Each week, we clear approximately 10,000 tons of debris.”

The Site 29 debris cleanup began in October and should finish in December. Any future work associated with the buried debris will be addressed in a final cleanup document called the South Base Record of Decision.

For now, Hobbs only has plans to put

in new storm water drainage pipes to ensure rain drains away from the landfill, not toward it, and to improve the fencing around the site.

The South Base landfill covers 38 acres and is located at the southwest corner of Rogers Dry Lake. From the 1930s to the 1970s, the Air Force deposited household and industrial waste from both South and Main bases into the landfill. Operators used the cut-and-cover method of waste

disposal, which involved digging trenches to contain the waste. At the end of each operating day, the waste was covered with six inches of soil.

For more information about recycling base debris, contact Environmental Management at (661) 277-1401. To learn more about the U.S. Small Business Administration, visit their Web site at <http://www.sba.gov>.

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**FOR EXAMPLE** — Chris Bason of J.C. Palomar sits on the truck scale to demonstrate how each truck is weighed. The scale shows a reading of about 200 lbs.



**WEIGH IN** — A truck loaded with asphalt debris gets weighed before dumping its contents into the recycling area.

## QUICK FACTS: Muroc Army Air Field



**BACK THEN** — A photo of a building demolished at Muroc Army Air Field — now South Base — shortly after World War II.

- Used as a World War II military training facility
- 6,300 men were stationed here by the end of 1942
- The B-24 Liberator, B-17 Flying Fortress and B-29 Superfortress were flown here
- By the end of World War II, Muroc Army Air Field had luxuries such as a hospital, commissary, library, theater and recreational buildings

# Site 3: Put a lid on it

**B**ase restoration experts completed a feasibility study for Site 3, the Main Base inactive landfill, and the preferred cleanup method they have proposed is a new cover.

According to the restoration site's program manager, Tom Merendini, studies have shown that a landfill cover technology, called evapotranspiration (ET) — which uses native plants and soil as a cover — proves to be successful given proper soil and weather conditions.

Edwards participated in a U.S. Environmental Protection Agency (EPA) effort to study how effective native soil and plants could possibly be as a final landfill cover at Site 3. According to Merendini, researchers said that an ET cover could work at the inactive landfill.

Final landfill covers are designed to keep storm water from seeping through soil into waste cells. When storm water seeps into waste cells and comes into contact with decomposing waste and chemicals, a liquid called leachate is formed. If the leachate migrates downward into groundwater, it can contaminate it.

The groundwater beneath Site 3 already contains low levels of contamination

caused by storm water that filtered through the waste and traveled down into the groundwater. There are large cracks in the landfill and the soil is quite permeable, which allowed the small amount of storm water Edwards receives, to make that journey.

The 67-acre landfill at Site 3 used a cut-and-cover method for disposing of waste, a method in which waste was covered at the end of each day with a layer of soil. The landfill was in operation from the mid-1960s to 1976. Before it was abandoned, the landfill was covered with soil and textile layers to prevent rain from traveling through the waste and then into the groundwater.

"All of those types of textile layers and

covers eventually leak," Merendini said. "The ET cover we're proposing utilizes native plants to absorb most of the water in the soil and then allows it to evaporate.

"These covers have been found to be as effective as the other covers, but are

less expensive and look better," Merendini continued. "Here in the desert, we don't get a lot of rain and we've found that this kind of cover works quite effectively. The bottom line is that we're trying to protect the groundwater."

The levels of contaminants in the groundwater at Site 3 are above EPA and state regulations but

low enough that restoration experts think the contaminants could naturally break down into harmless byproducts over time.

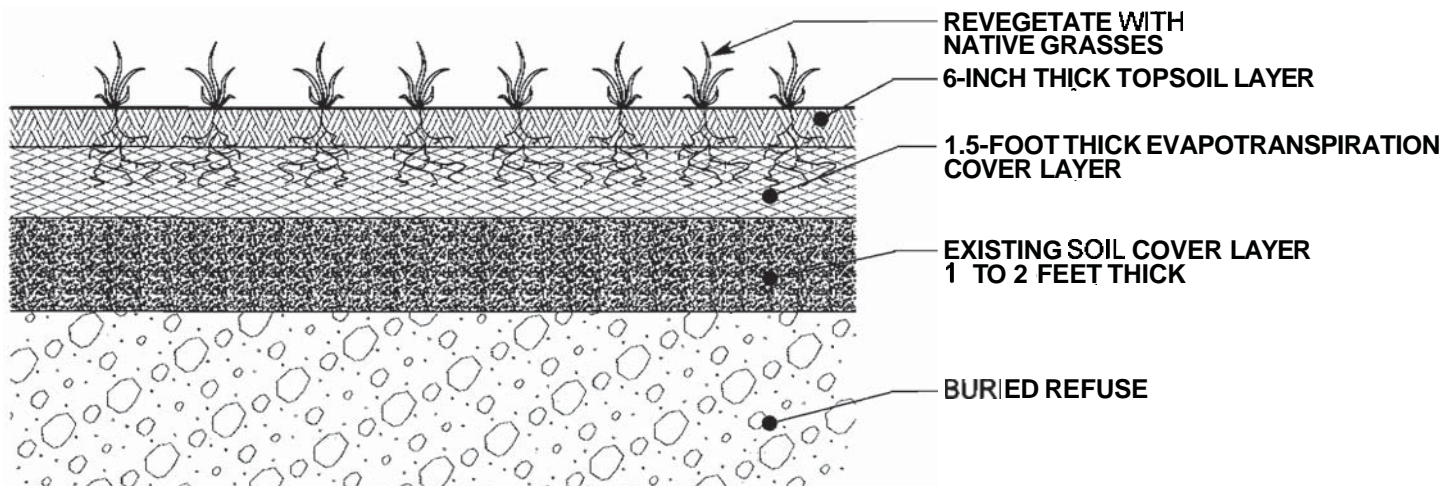
"There's very little contamination in

// All of those types of textile layers and covers eventually leak. The ET cover we're proposing utilizes native plants to absorb most of the water in the soil and then allow it to evaporate.

Tom Merendini  
Environmental Restoration Program Manager  
Environmental Management

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**CONCEPTUAL COVER** — Base restoration experts propose the landfill cover shown below as part of the preferred remediation alternative for Site 3. According to program manager Tom Merendini, the cover is just as effective as a conventional cover, but less expensive and looks better.





the water and the plan is that we're going to monitor the water and rely on natural attenuation," Merendini said, "meaning that it will break down over time, naturally into benign, nonhazardous chemicals. This is our proposal to protect the groundwater from being contaminated further."

The idea with the preferred cleanup method is that a graded ET cover, along with a storm-water drainage system — which will divert surface water away from the landfill — will keep water from seeping through the waste and into the groundwater. That will prevent further contamination from happening and allow naturally occurring, chemical breakdown mechanisms to clean the water.

In addition to the final cover, storm-water drainage system and groundwater monitoring, base restoration experts are proposing land-use controls be put in place to prohibit the use of the groundwater at Site 3. They are also proposing landfill gas monitoring and consolidating waste located outside the fenced area into a waste cell inside.

This alternative will be featured in a proposed plan that will be sent to regulators for approval. Base restoration experts will later seek public comment before any design or construction can take

place. The site follows the Comprehensive Environmental Response, Compensation, and Liability Act and is currently in the feasibility study phase.

"Relative to a lot of other sites, what makes this one different is that the design and construction of this cover is less expensive than a conventional cover and more aesthetically pleasing," Merendini said.

The Air Force Center for Engineering and the Environment reviews any cleanup proposal with a price tag exceeding \$500,000, like the proposal for Site 3. The preferred remediation alternative was presented to center personnel and was approved for funding allocation. However,

before any design or construction can begin, the alternative still needs federal, state and local regulators to review and approve it as the appropriate cleanup decision.

Site 3, located in the Environmental Restoration Program's Operable Unit 7, has a long road ahead, but Merendini said that at this point, his team is on track for having a remedy in place at the site by 2012.

"The Air Force has set that goal, and right now, we're on track to meet it at Site 3," Merendini said.

The 67-acre inactive landfill holds some 525,000 cubic yards worth of household, commercial and industrial wastes. The reason for the closure is unknown.



**LANDFILL NEIGHBORS** — Site 3, the Main Base inactive landfill, lies adjacent to the active landfill on base, just 1,600 feet from base housing. The site is undergoing the remedial investigation and feasibility study phases of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, which outlines a process for cleaning up hazardous waste sites.

## COYOTE

### From page 3

- Be careful not to corner the animal.
- Turn your body sideways and slowly walk away from the animal.

It is unlikely a bobcat will ever attack a human, base biologists said. Bobcats will, however, defend themselves if they feel trapped or are trying to protect their young.

If a coyote or other predator is threatening to harm a pet or family member, Security Forces is prepared to respond. Base residents can contact Security Forces at (661) 277-3340.

Other concerns or biological questions may be referred to Environmental Management at (661) 277-1401.

More information about coyotes can be found on the California Department of Fish and Game Web site at <http://www.dfg.ca.gov/news/issues/coyote.html>.

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## Where to Find More INFORMATION

Published data and documents relating to Environmental Management are available for public review in information repositories at three locations. The current information repositories are located in the cities of Lancaster and Rosamond, as well as Edwards Air Force Base. They are updated when new documents are released.

For questions about information in the repositories, you may contact Gary Hatch, Environmental Public Affairs at (661) 277-1454 or by e-mail at [95abw.pae@edwards.af.mil](mailto:95abw.pae@edwards.af.mil). Here is a list of our current information repositories:

### Edwards Air Force Base Library

5 W. Yeager Blvd.  
Edwards AFB, Calif.  
(661) 275-2665  
Hours of operation: Mon-Thu 9:30 a.m. – 7 p.m.  
Fri 9:30 a.m. – 6 p.m.  
Sat-Sun 10:30 a.m. – 6 p.m.

### Kern County Public Library

**Wanda Kirk Branch**  
3611 Rosamond Blvd.  
Rosamond, Calif.  
(661) 256-3236  
Hours of operation: Tue-Wed 12 p.m. – 8 p.m.  
Thu-Sat 10 a.m. – 6 p.m.

### Los Angeles County Public Library

601 W. Lancaster Blvd.  
Lancaster, Calif.  
(661) 948-5029  
Hours of operation: Mon-Wed 10 a.m. – 8 p.m.  
Thu-Fri 10 a.m. – 5 p.m.  
Sat 11 a.m. – 5 p.m.

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## Restoration Advisory Board (RAB) Information

The RAB is made up of appointed representatives from communities in and around Edwards Air Force Base, regulators from federal and state agencies and base officials. The board's purpose is to provide a forum for two-way communication among base restoration officials, regulators and representatives regarding the cleanup of contamination from past military activities.

The board meets quarterly, rotating meeting locations in communities surrounding the base. The public is welcome to attend. If you have any questions or concerns about the cleanup activities going on at Edwards, you

may contact your community's RAB member or Gary Hatch, Environmental Public Affairs, at (661) 277-1454.

### Next Quarterly Meeting

Date: Feb. 19, 2009  
Time: 5:30 p.m.  
Location: Rosamond  
Venue is to be determined

## RAB Members

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Vacant

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### Lahontan Regional Water Quality Control

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Joseph Healy (415) 972-3269 Work  
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